POOR LEGIBILITY

ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ
DUE TO THE QUALITY OF THE ORIGINAL

CH2M HILL
155 Grand Avenue
Suite 1000
Oakland, CA 94612
Tel 510.251.2426
Fax 510.622.9000

CH2MHILL

April 13, 2009

277085.31.LC/XC2006217A

Mr. Henry Chui
California Environmental Protection Agency
Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, CA 94710-2737

Subject: Polychlorinated Biphenyls at Building 688 UL#02 In Investigation Area C2, Where No Further Action is Required under the Department of Toxic Substances Control Consent Agreement

Dear Mr. Chui:

CH2M HILL prepared this letter in compliance with the requirements in the Consent Agreement for Lennar Mare Island, LLC's (LMI), Eastern Early Transfer Parcel (LMI et al. 2001) signed April 16, 2001, by LMI, the City of Vallejo, and the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) and according to the *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003). The letter requests DTSC concurrence that a no further action (NFA) determination is appropriate, with respect to polychlorinated biphenyl (PCB) contamination, as part of the overall regulatory closure process for the PCB Site Building 688 UL#02, on LMI's Eastern Early Transfer Parcel. An NFA determination is appropriate because a site-specific risk evaluation, presented in this letter, demonstrates that the potential risks associated with exposure to residual PCBs at PCB Site Building 688 UL#02 are at the low end of the risk-management range and the hazard index for the industrial worker is less than 1. The results of the investigations show that no cleanup activities are necessary at PCB Site Building 688 UL#02.

Site Identification

Using visual site surveys, reviews of historical records, building closure reports, and databases of electrical equipment, the United States Department of the Navy (Navy) identified sites where PCB-containing equipment was located, PCB spills were documented, or contamination was suspected because of building history or visible stains (Tetra Tech Environmental Management, Inc. [TtEMI] 1999). Navy personnel from Supervisor of Shipbuilding, Conversion and Repair, Portsmouth, Virginia, Environmental Detachment (SSPORTS) conducted interim PCB assessments and performed cleanup actions (e.g., washing, scabbling) in accordance with technical work documents (TWDs), where necessary.

Building 688, a pump test shop built in 1941, is located east of Railroad Avenue and south of Oklahoma (formerly 13th) Street in Investigation Area C2 (Figure 1). Building 688 is currently occupied and used for material storage. According to the *Preliminary Land Use Plan*

(SWA Group 2000), Building 688 is in an area designated for future industrial use. Figure 1 shows the location of Building 688.

There are three previously-unidentified PCB sites associated with Building 688 that were not listed in the Consent Agreement signed April 16, 2001 between LMI, the City of Vallejo, and the State of California Environmental Protection Agency, Department of Toxic Substances Control (DTSC) (LMI et al. 2001): UL#01, UL#02, and UL#03. PCB Site Building 688 UL#02 is defined as the building floor stains in the northern, southeastern, and central interior of Building 688. PCB Site Building 688 UL#01 consists of concrete, manholes, soil, and asphalt associated with a transformer pad adjacent to the western exterior wall of Building 688 and is being addressed for closure in a separate submittal. PCB Site UL#03 consists of loose sediment and debris inside covered and steel-lined pits beneath the floor of Building 688 and is being addressed for closure in a separate submittal (Figure 1).

Site Investigations and Cleanup Actions

Table 1 summarizes the previous sampling at Building 688 UL#02. This table includes the sample numbers, matrices, dates, and total PCB concentrations (or laboratory reporting limit if PCBs were not detected).

The following site investigation summary is based on CH2M HILL's review and interpretation of historical information contained in TWDs 95-0328 and 95-0340, which were discovered during transition of Navy documents to LMI prior to commencement of work under the Consent Agreement. From this historical documentation, it appears that in April 1995, SSPORTS performed PCB sampling activities inside Building 688. A hand-annotated, undated figure attached to the TWDs (Attachment 1) appears to show approximately 40 proposed sample locations on the first floor of Building 688; however, there is only documented evidence of four samples being collected based on the laboratory data sheets and proposed actions at two targeted locations presented in the TWDs. The laboratory data sheets for the four samples collected by SSPORTS (5103-0644, -0645, -0667, and -0668) are summarized in Table 1 and are provided with the TWDs for reference in Attachment 1. The approximate location of two of the four samples collected by SSPORTS whose PCB concentrations were 4.09 micrograms per sample area (µg/sample) (5103-0667) and 2.45 µg/sample (5103-0645) were not specifically identified in the TWDs, but their approximate location inside Building 688 has been plotted in Figure 2 using the locations on the hand-annotated figure in TWD 95-0328 (SSPORTS 1995a-b). The location of the remaining two wipe samples was determined from the TWDs. Wipe sample 5103-0668 (15.1 µg/sample) was collected from a stained area in the southwestern part of Building 688, and wipe sample 5103-0644 (11.2 µg/sample) was collected from the stain in the northern part of Building 688 (SSPORTS 1995 a-b) (Figure 2).

As part of TWD 95-0328, SSPORTS decontaminated the stain in the northern part of Building 688 where previous wipe sample location 5103-0644 (11.2 µg/sample) was collected (SSPORTS 1995b) (Figure 2). The floor stain was double-washed/-rinsed with industrial-strength detergent or non-ionic surfactant solution (Attachment 1). Additionally, as part of TWD 95-0340, SSPORTS decontaminated a stain in the southeast end of Building 688 where previous wipe sample location 5103-0668 (15.1 µg/sample) was collected (SSPORTS 1995a) (Figure 2). The floor stain was double-washed/-rinsed with industrial-strength detergent or non-ionic surfactant solution (Attachment 1).

Based on historical laboratory data sheets, in 1996, SSPORTS collected one concrete chip sample (6120-0018) from a stain in the northern part of the building (1.6 milligrams per kilogram [mg/kg]), one oil sample (6120-0019) from a starting compensator (3.9 parts per million) that was located in the southern portion of the building at that time, and one additional concrete sample (6120-0017) from an unknown location (1.5 mg/kg). Based on visual observations from inside the building, it is believed that the starting compensator from Building 688 was removed prior to CH2M HILL's involvement at the site.

On June 28, 2002, CH2M HILL collected one wipe verification sample (B688UL2WP0273) from the northern stain and one concrete chip verification sample (B688UL2CH0274) from the southeastern stain (Figure 2). PCBs were detected in wipe sample B688UL2WP0273 at a total concentration of 1.32 micrograms per 100 square centimeters (µg/100 cm^2) and in concrete chip sample B688UL2CH0274 at a total concentration of 0.42 mg/kg (Figure 2).

Polychlorinated Biphenyl Site Closure Process

According to the *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003), and under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), NFA is appropriate at a PCB site if no potential source and no PCB contamination are present. Even if a potential source or PCB contamination is present in machinery or building materials, NFA is appropriate under CERCLA if there has been no release of PCBs to soil or groundwater and no visible pathway exists for migration of PCBs to soil or groundwater. If there has been a known release to soil or groundwater, NFA is also appropriate if the detected PCB concentrations in soil and groundwater do not exceed the applicable screening levels, or if results of a site-specific risk evaluation demonstrate that potential risks associated with exposure to residual PCBs are within the risk-management range generally used to determine whether cleanup is necessary.

Following the cleanup action at PCB Site Building 688 UL#02, the maximum remaining total PCB concentration in a concrete sample is 1.6 mg/kg. The exposure point concentration (EPC) for total PCBs in concrete, using the 95 percent upper confidence limit on the mean generated using proUCL 4.0, is 1.6 mg/kg (maximum value). As a screening-level assessment of potential cancer risks and noncancer hazards associated with exposure to residual levels of PCBs in floor materials, the risk ratio approach was used to calculate cancer risk and hazard index estimates that are based on the United States Environmental Protection Agency's (USEPA's) regional screening levels (RSLs) and the EPC. Using the EPC, the estimated potential risk from exposure to solids in an industrial setting at PCB Site Building 688 UL#02 is 1.8×10^{-6} (EPC for total PCBs [1.6 mg/kg] divided by the USEPA RSL for cancer effects [0.86 mg/kg] $\times 10^{-6}$), and the hazard index is less than 1 (EPC for total PCBs [1.6 mg/kg] divided by the USEPA RSL for noncancer effects for the industrial worker [11 mg/kg] = 0.15).

The total cumulative potential risk from exposure to PCBs in the building materials (wood, asphalt, and concrete) at PCB Site Building 688 UL#02 is 2×10^{-6}. This is likely an overestimate of potential risks because the RSL that was used in the risk calculation for solid media is based on soil exposure and includes the inhalation, dermal contact, and ingestion exposure routes and an exposure frequency of 250 days per year. In addition, for each of the exposure routes, the exposure assumptions for intake of PCBs in soil probably overestimate intake of PCBs in the floor.

According to the risk evaluation results, and because conservative assumptions were used in the risk calculations for this site, no further PCB cleanup is necessary at PCB Site Building 688 UL#02. Therefore, the conditions for DTSC closure of PCB sites have been met for this site. An NFA determination under CERCLA would be protective of human health and the environment at PCB Site Building 688 UL#02, with implementation of a land use covenant limiting the property to industrial use.

Conclusions

The estimated potential cumulative risk for PCBs in building materials (concrete floor) in an industrial setting at PCB Site Building 688 UL#02 is 2×10^{-6}, and the hazard index (industrial worker scenario) is less than 1. The results of the site-specific risk evaluation completed for PCB Site Building 688 UL#02 demonstrate that potential risks associated with exposure to residual PCBs at PCB Site Building 688 UL#02 are at the lower end of the risk-management range generally used to determine whether cleanup is necessary (1×10^{-4} to 1×10^{-6}). Therefore, in accordance with the *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003), NFA is appropriate for PCB Site Building 688 UL#02. Consequently, it is requested that DTSC issue an NFA determination under CERCLA, with implementation of a land use covenant limiting PCB Site Building 688 UL#02 to industrial use. This land use covenant will run with the land, and will be enforceable by the DTSC, with USEPA as a third-party beneficiary.

Please respond to this letter with confirmation that, in accordance with the approved *Final Polychlorinated Biphenyl Work Plan* (CH2M HILL 2003), NFA under CERCLA is appropriate for PCB Site Building 688 UL#02. Please submit your response to Stephen Farley at the above address or via email at Stephen.Farley@ch2m.com. If you have questions regarding the PCB site addressed in this letter, please contact Jennifer Lindquist at 530/229-3224 or Stephen Farley at 707/562-1015, extension 103.

Sincerely,

CH2M HILL

Jennifer L. Lindquist
Project Manager

Stephen M. Farley, P.G.
Quality Control Manager

(B688UL#02_DTSC.doc)

Enclosures: Table 1, Figure 1, and Figure 2

References

CH2M HILL. 2003. *Final Polychlorinated Biphenyl Work Plan*. March 7.

Lennar Mare Island, LLC (LMI), the City of Vallejo, and the State of California Environmental Protection Agency, Department of Toxic Substances Control (DTSC). 2001. *Consent Agreement Between Lennar Mare Island, the City of Vallejo, and the State of California, California Environmental Protection Agency, Department of Toxic Substances Control.* April 16.

Supervisor of Shipbuilding, Conversion, and Repair, Portsmouth, Virginia, Environmental Detachment (SSPORTS). 1995a. *PCB Decontamination Technical Work Document (TWD) No. 95-0340.* June.

_____. 1995b. *PCB Decontamination Technical Work Document (TWD) No. 95-0328.* June.

SWA Group. 2000. *Preliminary Land Use Plan.* May 23.

Tetra Tech Environmental Management, Inc. (TtEMI). 1999. *Final Basewide Polychlorinated Biphenyl Confirmation Sampling Summary Report.* Revised. January.

United States Environmental Protection Agency (USEPA). 2008. *Regional Screening Levels for Chemical Contaminants at Superfund Sites.* http://epa-prgs.ornl.gov/chemicals/index.shtml. September.

Copy to (with enclosures):

Mr. Paisha Jorgensen
Regional Water Quality Control Board
1515 Clay Street, Suite 1400
Oakland, CA 94612
(Non-PCB documents only;
Also electronic copy of non-PCB documents)

Mr. Gordon Hart
Paul, Hastings, Janofsky, Walker, LLP
55 Second Street, 24th Floor
San Francisco, CA 94105-3411

Ms. Carolyn d'Almeida
U.S. EPA Region 9 (SFD 8-1)
75 Hawthorne Street, 9th Floor
San Francisco, CA 94105

Mr. Gil Hollingsworth
Mare Island Conversion Division
City of Vallejo, 555 Santa Clara Street
Vallejo, CA 94590-5934
(Electronic copy only)

Mr. Neal Siler
Lennar Mare Island, LLC
690 Walnut Avenue, Suite 100
Vallejo, CA 94592
(Electronic copy also)

Ms. Myrna Hayes
816 Branciforte Street
Vallejo, CA 94590

Mr. Bob Palmer
Caretaker Site Office, SF Bay
410 Palm Ave., Bldg. 1, Suite 161
San Francisco, CA 94130
(2 copies)

Mr. Michael F. McGowan, Ph.D.
Arc Ecology
4634 – 3rd Street
San Francisco, CA 94124
(Electronic copy only)

Ms. Sheila Roebuck
Lennar Mare Island, LLC
690 Walnut Avenue, Suite 100
Vallejo, CA 94592
(Electronic copy of IAs D1 and H2 only)

Ms. Kanan Sheth
Zurich North America Specialties
P.O. Box 307010
Jamaica, NY 11430-7010
(Electronic copy only)

Mr. John Catts
130 Camino Margarita
Nicasio, CA 94946
(Electronic copy only)

Ms. Karen Lubovinsky
449 Union School Rd, Ste 101
Oxford, PA 19363
(Electronic copy only)

CH2M HILL copies:
Paula Bolio
Clemena Balbuena
Jen Tausch
Tim Graves (Electronic copy only)
Ed Aromi (Electronic copy only)
Starr Dehn (Final link only)
John Romie (Electronic copy of final only)

Mr. Ben Harper
3003 Summit Boulevard, Suite 1800
Atlanta, GA 30319
(Electronic copy only)

Copy to (without enclosures):

Ms. Janet Whitlock
U.S. Fish and Wildlife Service
2800 Cottage Way, Room W-2605
Sacramento, CA 95825

Mr. Justice Budu
107 Fieldstone Way
Vallejo, CA 94589

Ms. Laurie Sullivan
National Oceanic and Atmospheric Administration
75 Hawthorne Street, 9th Floor
San Francisco, CA 94105
(Electronic copy only via email)

Mr. Mike Coffey
6 Oricle Court
American Canyon, CA 94503

Mr. Ron Pilkington
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, CA 94109

Mr. James O'Loughlin
1449 Sheridan Drive
Napa, CA 94558

Mr. Kenneth Browne
109 El Camino Real
Vallejo, CA 94590

Mr. Max Delaney
San Francisco Bay Commission
50 California Street, Suite 2600
San Francisco, CA 94102

Mr. Adam A. Chavez
1031 Florida Street
Vallejo, CA 94590-5513

Mr. Terry Schmidtbauer
Dept. of Resource Management
County of Solano
675 Texas Street, Suite 5500
Fairfield, CA 94533

Mr. Gerald Karr
149 Garden Court
Vallejo, CA 94591

Mr. Russell S. Sherman
Vallejo Fire Department
970 Nimitz Avenue
Vallejo, CA 94592

Ms. Paula Tygielski
456 East L Street
Benicia, CA 94510

TABLE 1
Sample Results for Building 688 UL#02
PCB Sites, Lennar Mare Island, Vallejo, California

PCB Site Name	Site Description	Sample Number	Sample Matrix	Sample Date	Total PCB Concentration	Comments
Building 688 UL#02	Interior of Building 688	5103-0644	Concrete wipe	04/14/1995	11.2 µg/sample	Stain in northern portion of building; removed per TWD 95-0328; Aroclor-1254
		5103-0645	Concrete wipe	04/14/1995	2.45 µg/sample	Collected from southern portion of building; Aroclor-1254
		5103-0667	Concrete wipe	04/17/1995	4.09 µg/sample	Collected from southern portion of building; Aroclor-1254
		5103-0668	Concrete wipe	04/17/1995	15.1 µg/sample	Stain in southeastern portion of building' removed per TWD 95-0340; Aroclor-1254
		6120-0017	Concrete chip	04/1996	1.5 mg/kg	Unknown location inside Building 688; Aroclor-1260
		6120-0018	Concrete chip	04/30/1996	1.6 mg/kg	Stain in northern portion of building; Aroclor-1260
		6120-0019	Oil	04/1996	3.9 ppm	Oil sample from starting compensator (removed); Aroclor-1260
		B688UL2WP0273	Concrete wipe	06/28/2002	1.32 µg/100 cm^2	Verification sample associated with cleanup of 5103-0644;
		B688UL2CH0274	Concrete chip	06/28/2002	0.42 mg/kg	Verification sample associated with cleanup of 5103-0668;

mg/kg milligrams per kilogram
µg/100 cm^2 micrograms per 100 square centimeters
ND not detected (laboratory reporting limit)
ppm parts per million
PCB polychlorinated biphenyl

FIGURE 1
GENERAL LOCATION OF BUILDING 688
INVESTIGATION AREA C2
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

\\BALDUR\PROJ\MARE_ISLAND_264204\MXDS\PCB\B688\RFC\FIG1_B688_UL02_UL03_LOC.MXD ECLARK1 4/2/2009 17:25:11

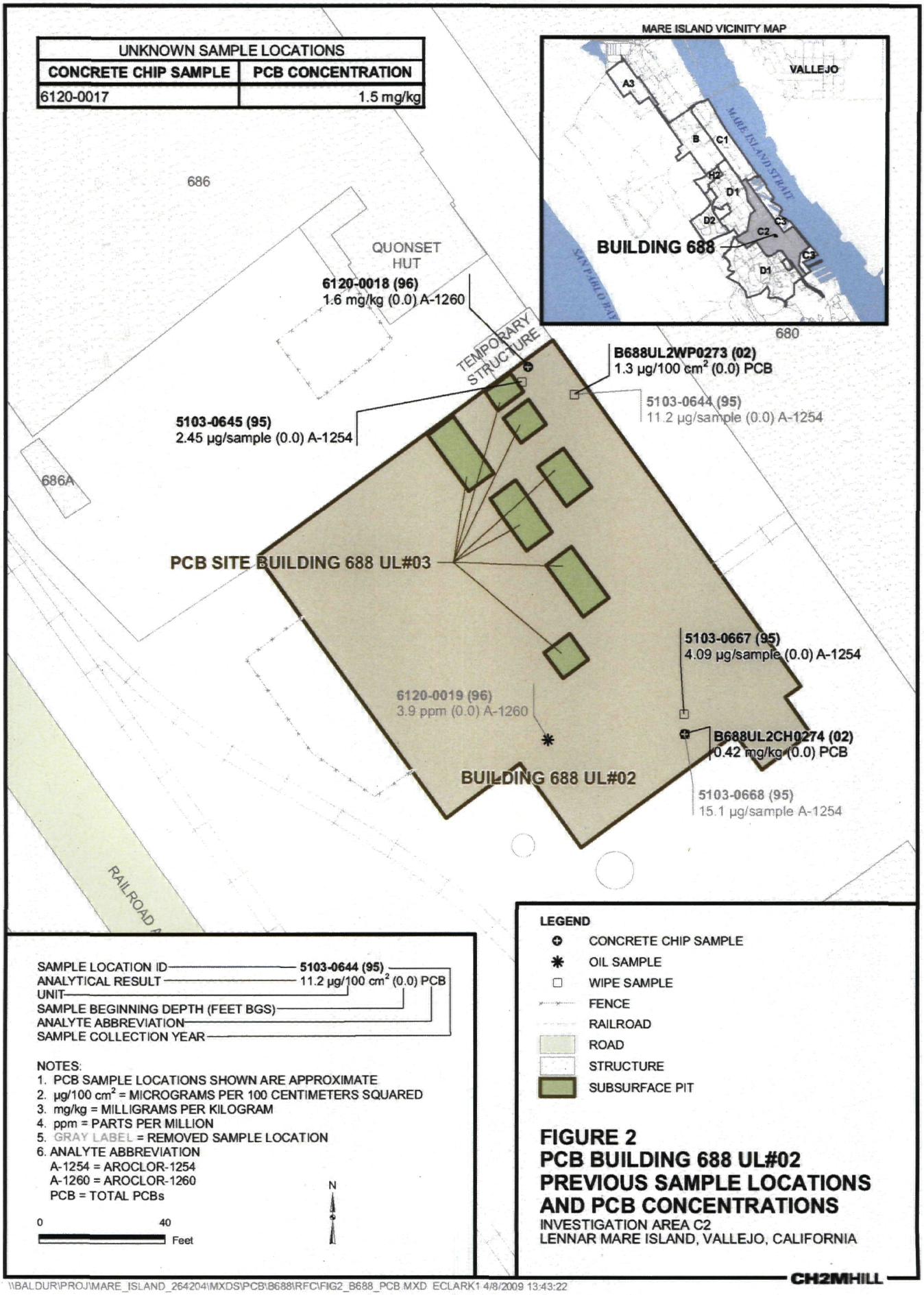


FIGURE 2
PCB BUILDING 688 UL#02 PREVIOUS SAMPLE LOCATIONS AND PCB CONCENTRATIONS

INVESTIGATION AREA C2
LENNAR MARE ISLAND, VALLEJO, CALIFORNIA

CH2MHILL

\\BALDUR\PROJ\MARE_ISLAND_264204\MXDS\PCB\B688\RFC\FIG2_B688_PCB.MXD ECLARK1 4/8/2009 13:43:22

Attachment 1

u10#02255

MARE ISLAND NAVAL SHIPYARD
YARD ROUTE SLIP

CODE	STOP	NAME	EXTENSION	DATE
106.4PCB	B521	[illegible]	[illegible]	[illegible]

- ☐ ACTION
- ☐ AS DISCUSSED
- ☑ COMMENT / CONCUR
- ☐ COORDINATE
- ☐ FILE
- ☐ INFORMATION
- ☐ PREPARE DRAFT
- ☐ PREPARE FOR SIGNATURE
- ☐ REPORT BACK
- ☐ RETENTION
- ☐ RETURN

TO CODE	INITIALED BY	INITIALED DATE	SUBJECT / COMMENTS
			SUBJECT: TWD # 338 BLDG # 688
			COMMENTS
106.4	[illegible]	6/15	REVIEW
106.4FP	[illegible]	9/15	APPROVAL
~~106.1~~			~~CONCURRENCE (WHEN REQUIRED)~~
~~106.2~~			~~CONCURRENCE (WHEN REQUIRED)~~
106.32	[illegible]	5/15/95	CONCURRENCE
			ITEM # 10/11 ON 106.04 SURVEY REPORT
			COPIES TO 300CC/EC, STATUS
106.4	[illegible]	6-16-95	LAST: LINDA REMMINGTON (COPIES TO 300EC/CC & ~~106.1/106.2~~)
			LARRY RAMEY
			CRAIG VARNAU

MINS 5216/24 (REV 1-85)

PCB DECONTAMINATION TECHNICAL WORK DOCUMENT (TWD)

PCB CONTAMINATED MACHINE NO FLOOR STAIN-88

TWD NO. 95-0328

BLDG NO. 688

MARE ISLAND NAVAL SHIPYARD
VALLEJO, CALIFORNIA

Prepared by:
BRAC Environmental Technical Division
Code 106.4
Vallejo, Calif. 94592

Distribution:
300EC
300CC
106.4
106.32

PCB DECONTAMINATION
TECHNICAL WORK DOCUMENT
INITIAL ISSUE

		Date
Prepared by:	Code 106.4	
Reviewed by:	Code 106.4	6-15-95
Approved by:	Code 106.4 (Project Manager)	6/15/95
Concurrence:	Code 106.32	6-15-95

Rev.	Description	Approval	Date

1.0 Purpose

1.1 The purpose of this TWD is to decontaminate stained concrete floor area of building 688, (1st floor). The stain is located in the northeast side of building 688 (see sketch on enclosure 3). The stain contains 11.2 ug/100 sq. cm. for sample 5103-0644. The result exceeds the acceptable PCB level of 10 ug/100 sq. cm. (see enclosure 1) as described in reference 3.2. The sample number should be marked near the sample location. Code 106.4 shall be contacted at 6-7657 if sample number is missing from the area.

2.0 Description

2.1 The floor oil stain shall be decontaminated using the procedures required by this TWD.

3.0 References

3.1 NAVSHIPYDMAREINST 5100.36 -- Shipyard Occupational Safety and Health Workplace Manual, Mare Island Naval Shipyard, Occupational Safety, Health, and Environmental Office -- Code 106

3.2 Workplan PCB Decontamination for Spill Sites, Mare Island Naval Shipyard, Code 106.4.

3.3 Mare Island Naval Shipyard Environmental Protection Manual of 1 February 1994

4.0 Health & Safety Section / General Notes

4.1 All work performed shall be in strict adherence to the shipyard Occupational Safety and Health (OSH) Manual (reference 3.1) the General Health & Safety Plan, Section 4 of reference 3.2., and the Health and Safety Section of this TWD.

4.2 At least two people shall be present at all times while chemical or physical hazards exist and access is being controlled to the PCB Work Area.

4.3 Personal protective equipment (PPE) shall be as follows:
Saranex coated tyvek coveralls
Viton gloves with latex gloves worn over them
Steel toed boots (if worn without coverings shall be washed with detergent and rinsed).
Nitrile or neoprene foot coverings may be worn over steel toed boots.
Face shield (8" minimum) with vented goggles (while cleaning)

4.4 Workers performing decontamination shall have received the following training as a minimum:
PCB Handling Controls (course YJ-B010)
Hazcomm (course YJ-A552)

4.5 The main hazard at the site is PCBs on the floor. Slip and trip hazards are existent due to raised floor from water damage. Ventilation is adequate as the building is vacant and is large, and this will provide fresh air.

4.6 Temperatures above 100 degrees are not expected, nor is any hot work authorized, so PCBs will not be airborne.

4.7 Site access shall be controlled using the following areas:
• Hot Zone - The area of the spill site. Personnel entry to the hot zone shall be minimized. The area to be decontaminated and disposed of is the hot zone plus the buffer zone.
•Buffer Zone - A one (1) foot wide area adjacent to and surrounding the hot zone.
•Warm Zone - An area approximately three (3) feet by six (6) feet near the hot zone established by this TWD. The warm zone shall be used for exiting PPE decontamination procedures. The warm zone shall be established prior to beginning decontamination.
These areas shall be posted to exclude unauthorized personnel and the building shall be locked when not in use.

4.8 An emergency eyewash station with a 15 minute minimum capacity shall be accessible in 10 seconds or less from the work area.

4.9 Phone numbers are as follows:

Hospital:	9-911 or 646-4444	Ambulance:	9-911 or 646-4444
Spill team:	646-0182 or 0183	Fire:	9-911 or 646-3333
Police:	9-911 or 646-2222	Project Mgr.:	646-5945
Emergency:	9-911		

4.10 Contact Code 106.4, L. Ramey at 6-7657 immediately after the floor decontamination. Resampling after decontamination is required by Code 106.4.

5.0 Decontamination Procedures

5.1 Support Area (Personal Decontamination)
Personal decontamination is required for PPE and cleaning equipment that comes in contact with PCB contaminated surfaces or PCB contaminated cleaning fluid and materials. Personal decontamination shall be performed in the warm zone, as defined in Section 4.7, and shall be performed in accordance with Section 4.9 of reference 3.2. The floor of the warm zone and routes between the warm zone and the hot zones shall be covered with plastic drop cloths to avoid spread of contamination.

5.2 HSP Forms

Code 106.4 will provide minimum specific health and safety information in Section 4.0 of each TWD. This information in most cases will be sufficient. Personal preferences regarding PPE and communication methods, and changes at the decontamination site from the time the TWD was written to when the decontamination is accomplished/completed may cause a change to the health and safety information provided. Therefore, the On-Site Health and Safety Coordinator, just prior to and during decontamination, shall review HSP forms 4.6, 4.15 and 4.16 of reference 3.2 and complete forms if: 1) one of the conditions mentioned in the previous sentence exist or 2) the TWD does not cover an item, e.g. communications, on HSP form 4.16. Any down grading of health and safety information (PPE and air monitoring) will only occur upon written approval of Code 106.4. HSP Acceptance Form 4.17 (enclosure 2), must be completed and signed by each person performing decontamination.

5.3 Sampling Evolution (Place an x or number on applicable line)

Initial Sampling ___X___ Resampling _____ (1,2,3,etc.)

5.4 Specific Instructions:

Perform decontamination of floor stain in accordance with the applicable general instructions set forth in reference 3.2, section 2, paragraph 2.5.1, and the specific requirements as follows: Before starting decon move work bench out of the way. Double wash /rinse entire stain on concrete area with industrial strength detergent or non-ionic surfactant solution, following steps in paragraph 2.5.2.1. All waste (including rags, gloves, etc.) shall be packaged and handled as PCB contaminated waste. Properly contain, store, label and dispose of contaminated debris, absorbents, rags, and other materials resulting from the decontamination. Latest disposal requirements are in reference 3.3 (Chapter 9, 4.c.(1).

5.5 Other Instructions

Resampling is required (see paragraph 4.10). Code 106.4 shall take a solid sample of the concrete area.

5.6 The shop performing the decontamination shall sign below to certify that the decontamination conforms to this TWD.

5.6.1 Code 300EC performed decontamination of floor oil stains in building 688 as required.

Code 300EC _____ Date _____

Return completed information package (TWD and HSP forms) for this floor stain to the project engineer, Code 106.4 PCBs, Building 521, second floor.

6.0 Code 106.4 Engineering Review and Approval and Resampling Results Acceptance

6.1 Code 106.4 conduct review and approval of information package. Floor oil stain decontamination conforms with requirements of this TWD.

Code 106.4_____Date_____

6.2 Code 106.4 review and acceptance of resampling results For results to be satisfactory they must be ≤ 10 µg/100 sq. cm. for wipe samples and < 50 ppm for other samples where no release to the environment has occurred.
Results are: ☐ SAT ☐ UNSAT (remarks required)
Remarks: _____

_____

_____

Code 106.4_____Date_____

7.0 Enclosures
(1) Sample Results
(2) Health And Safety Plan Acceptance Form
(3) Sketch

ANALYTICAL REPORT

Mare Island Naval Shipyard		Date Sampled:	04/14/95
Code 106.14, Step T-50		Date Received:	04/20/95
Building 1345		Date Extracted:	04/28/95
Vallejo, CA 94592-5100		Date Analyzed:	05/12/95
		Work Order No:	95-04-516
Attn: Tammi Kratzer		Units:	EPA 8080 (PCBs)
RE: Contract No. N68123-92-D-4011		Page:	12 of 20

All results are reported in µg/sample.

Sample Number: 5897-95 (688/05-F2/floor oil stain #)

Analyte	Concentration	Detectable Limit
Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	1.2	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

Sample Number: 5898-95 (688/05-F2/floor oil stain #)

Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	0.45	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

ENCLOSURE 1

TWD 95-0328

Health And Safety Plan Acceptance Form

INSTRUCTIONS: This form is to be completed by each person prior to beginning work at the PCB work area. Attach the completed forms to the TWD.

TWD No.: 95-0328

PCBCM#: FLOOR STAIN 68

By my signature below, I acknowledge that I have read and understand the contents of the Health & Safety Plan for this project. I agree to perform my work in accordance with the Health and Safety Plan.

Signature

Print Name

Code

Date

By my signature below, I acknowledge that I have read and understand the contents of the Health & Safety Plan for this project. I agree to perform my work in accordance with the Health and Safety Plan.

Signature

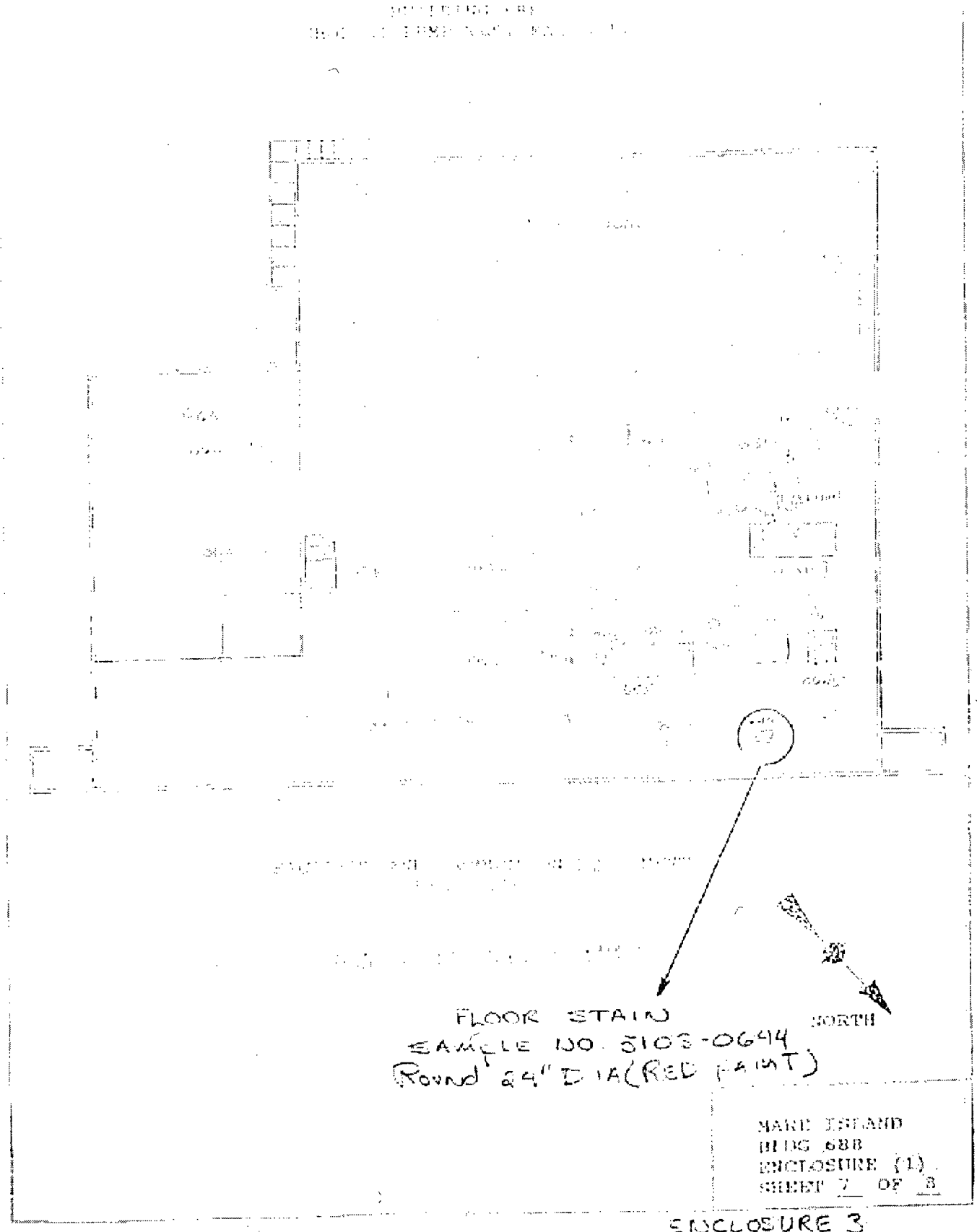
Print Name

Code

Date

Enclosure 2

TWD 95-0328



MAINE ISLAND
BLDG 688
ENCLOSURE (1)
SHEET 7 OF 8

ENCLOSURE 3

U10 # 02255

MARE ISLAND NAVAL SHIPYARD
YARD ROUTE SLIP

CODE	STOP	NAME	EXTENSION	DATE
106.4PCB		L. RAMEY	6-7657	/ /

(X) ACTION
( ) AS DISCUSSED
( ) COMMENT/CONCUR
( ) COORDINATE
( ) FILE
( ) INFORMATION
( ) PREPARE DRAFT
( ) PREPARE FOR SIGNATURE
( ) REPORT BACK
( ) RETENTION
( ) RETURN
( )

TO CODE	INITIALED BY	INITIALED DATE
PAINE		
VARNAU	[illegible]	6/5
[illegible]		

SUBJECT: REQUEST FOR TWD ACTION

COMMENTS: (SEE ATTACHED ANALYSIS RECORD)

EQUIPMENT DESCRIPTION:

EQUIPMENT ID NO:

EQUIPMENT LOCATION:

SAMPLE TYPE:

SCHEDULED DISPOSITION:

ANALYTICAL REPORT

Mare Island Naval Shipyard	Date Sampled: [illegible]/95
Code 106.14, Stop T-56	Date Received: 04/26/95
Building 1345	Date Extracted: 04/26/95
Vallejo, CA 94592-5100	Date Analyzed: 05/13/95
	Work Order No.: 95-04-516
Attn: Tammi Kratzel	Method: EPA 8080 (PCBs)
RE: Contract No. N00123-92-D-4011	Page 12 of 20

All results are reported in µg/sample.

Sample Number: 5897-95 (688/05-F2/floor oil stain #) [illegible]

Analyte	Concentration	Reportable Limit
Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	11.2	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

Sample Number: 5898-95 (688/05-F2/floor oil stain #)

Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	2.45	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

CHAIN OF CUSTODY RECORD dtd 04/17/95   95-m-0905   Doc Num 51070427 Page 3 of 4

C&T

ADDRESS BLOCK

From Tammi Kratzel MINSY Code 106.14 Stop T56 Bldg 1345 Vallejo, CA 94592-5100 Tel (707) 646-0181 Fax (707) 646-0184	To Cal Science Environmental Laboratories, Inc. 11631 Seaboard Circle Stanton, CA 90680 Tel (714) 895-5494 Fax (714) 894-7501

INSTRUCTION BLOCK

Turnaround Time: [ ] Same Day [ ] 24 Hrs [ ] 48 Hrs [ ] 5 Days [X] 10 Days [ ] Rush

Written QC Report Required? [X] Routine QC [ ] RWQCB

PCB SAMPLE DATA BLOCK

C106.14 Sample Number	C106.4 Sample ID	Location/Parcel/Description	Sampling Date	Sampling Time	Oil Grab	Water Grab	Solid/Soil Filter	Type	Num Cont	Cont Size	Analysis Required
5895-95	5103-0642	688/05-F2/floor oil stain #	04/14/95	13:25	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5896-95	5103-0643	688/05-F2/floor oil stain #	04/14/95	13:35	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5897-95	5103-0644	688/05-F2/floor oil stain #	04/14/95	13:45	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5898-95	5103-0645	688/05-F2/floor oil stain #	04/14/95	13:55	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5899-95	5103-0646	688/05-F2/floor oil stain #	04/14/95	14:05	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5900-95	5103-0647	688/05-F2/floor oil stain #	04/14/95	14:[illegible]	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5901-95	5103-0648	688/05-F2/floor oil stain #	04/14/95	14:25	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5902-95	5103-0649	688/05-F2/floor oil stain #	04/14/95	14:35	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5903-95	5103-0650	688/05-F2/floor oil stain #	04/14/95	14:45	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP
5904-95	5103-0651	688/05-F2/floor oil stain #	04/14/95	14:55	[ ]	[ ]	[X]	[2]	[1]	[40ml]	300IAP

Type: [1] swipe mn ext, [2] swipe spill, [3] swipe rcov int, [4] solid spill, [5] oil rec rm, [6] water grab, [7] blank

CHAIN OF CUSTODY RECORD

		Date	Time
Data Transferred by: (Signature)		4/17/95	0900
Relinquished by: (Signature)	Received by: (Signature)	4/17/95	1000
Relinquished by: (Signature)	Received by: (Signature)	4/17/95	[illegible]
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory: (Signature)	Date:	Time:

PCB SURVEY AND SAMPLE DATA SHEET (ADDON SHEET)

DESCRIPTION BLOCK

Bldg [illegible] Floor [illegible] Cmprt [illegible] Map Grid [illegible]

Desc [illegible] Manuf [illegible] Model Num [illegible] Manuf Ser Num [illegible]

Property Number [illegible] Alias [illegible] Num Of Samples [illegible]

PCB SAMPLE DATA BLOCK

Sample ID	Date	Time	Oil Grab	Water Grab	Swipe/Soil Filter	Type	Cont Size	Remarks
S103-0640	[illegible]		[ ]	[ ]	[ ]	[ ]	[ ]	[illegible]
S103-0641	[illegible]		[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0642	[illegible]		[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0643	[illegible]	[illegible]	[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0644	[illegible]	[illegible]	[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0645	[illegible]	[illegible]	[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0646	[illegible]	[illegible]	[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0647	[illegible]	[illegible]	[ ]	[ ]	[ ]	[ ]	[ ]	
S103-0648	[illegible]		[ ]	[ ]	[ ]	[ ]	[ ]	

Types: [1] swipe on ext, [2] swipe spill, [3] swipe resv int, [4] solid spill, [5] oil res enc, [6] water grab, [7] blank

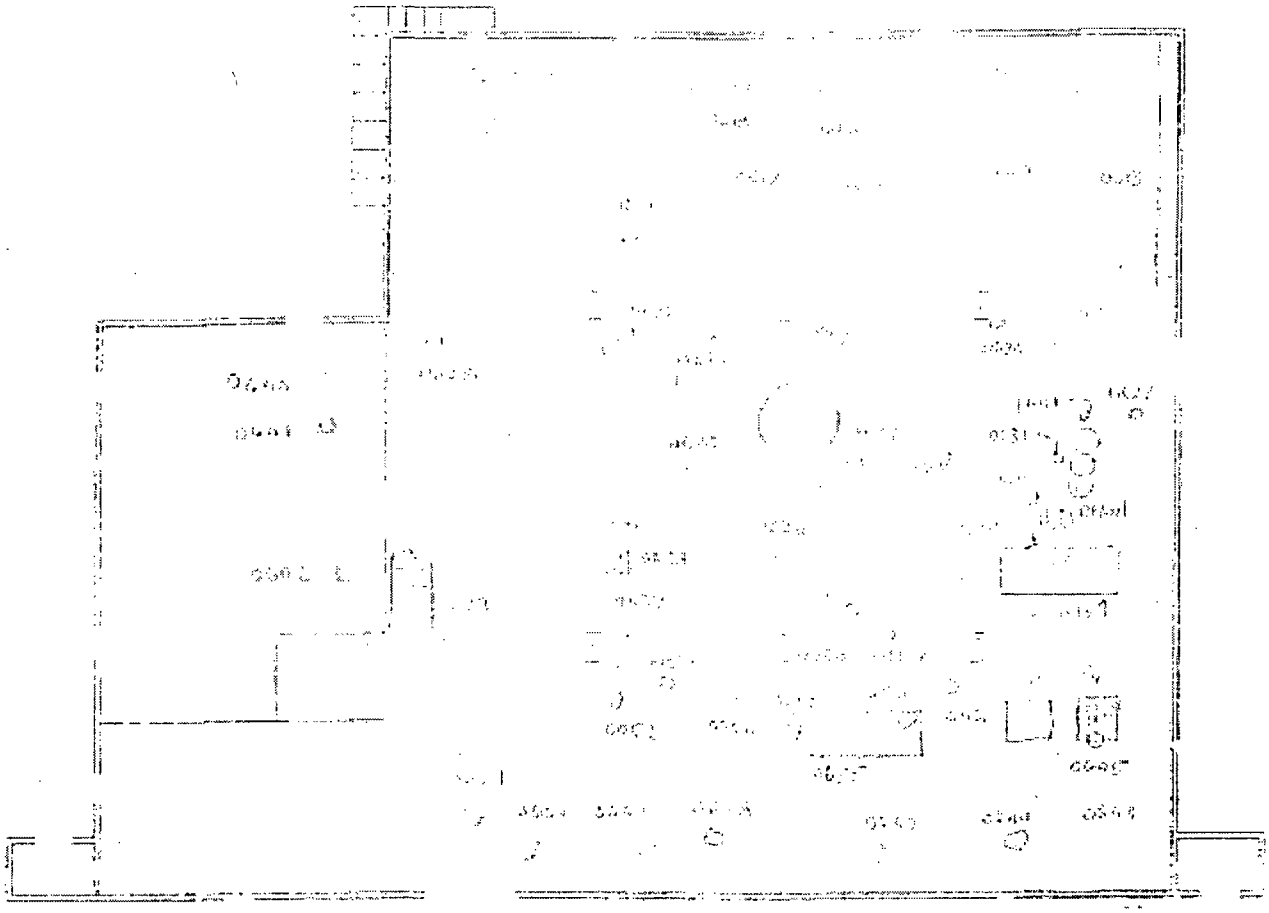
SKETCH BLOCK

[illegible]

Samples were taken, labeled, sealed, recorded, stored and secured from tampering by unauthorized personnel as required by: Section 3 of "Work Plan PCB Survey and Sampling For Mechanical Machinery"; or "Work Plan PCB Survey and Sampling for Possible Spill Sites".

Name [illegible]	Badge Num [illegible]	Date [illegible]	
Name [illegible]	Badge Num [illegible]	Date [illegible]	
Name [illegible]	Badge Num [illegible]	Date [illegible]	

BUILDING 688
SHOP 31 PUMP TEST FACILITY



FACILITY AND PRODUCTION EQUIPMENT
FIRST FLOOR

NORTH

MARE ISLAND
BLDG 688
ENCLOSURE (1)
SHEET 7 OF 8

0242

MARE ISLAND NAVAL SHIPYARD
YARD ROUTE SLIP

CODE	STOP	NAME	EXTENSION	DATE
106.4PCB	B521	Doug WooTeN	67659	6-16-95

☐ ACTION ☐ COORDINATE ☐ PREPARE DRAFT ☐ RETENTION
☐ AS DISCUSSED ☐ FILE ☐ PREPARE FOR SIGNATURE ☐ RETURN
☐ COMMENT / CONCUR ☐ INFORMATION ☐ REPORT BACK ☐

TO CODE	INITIALED BY	INITIALED DATE	SUBJECT / COMMENTS
			SUBJECT: TWD #95-0340 BLDG # 688
			COMMENTS
106.4	[signature]	6/16	REVIEW
106.4FP	[signature]	6/16	APPROVAL
106.32	[signature]	6/17/95	CONCURRENCE
			ITEM # N/A ON 106.04 SURVEY REPORT
			COPIES TO 300CC/EC, STATUS
106.4	[signature]	6-20-95	LAST: LINDA REMMINGTON (COPIES TO 300EC/CC
			LARRY RAMEY
			CRAIG VARNAU

MINS 5216/24 (REV 1-85)

PCB DECONTAMINATION TECHNICAL WORK DOCUMENT (TWD)

PCB CONTAMINATED MACHINE NO FLOOR STAIN-88

TWD NO. 95-0340

BLDG NO. 688

MARE ISLAND NAVAL SHIPYARD
VALLEJO, CALIFORNIA

Prepared by:
BRAC Environmental Technical Division
Code 106.4
Vallejo, Calif. 94592

Distribution:
300EC
300CC
106.4
106.32

PCB DECONTAMINATION
TECHNICAL WORK DOCUMENT
INITIAL ISSUE

		Date
Prepared by:	Sandra Wooten Code 106.4	6/16/95
Reviewed by:	[signature] Code 106.4	6-16-95
Approved by:	[signature] Code 106.4 (Project Manager)	6/16/95
Concurrence:	[signature] Code 106.32	6/16/95

Rev.	Description	Approval	Date

1.0 Purpose

1.1 The purpose of this TWD is to decontaminate stained area on the painted concrete area of building 688, (1st floor). The stain is located in the southeast end of building 688 (see sketch on enclosure 3). The stain contains 15.1 ug/100 sq. cm. for sample 5103-0668. The result exceeds the acceptable PCB level of 10 ug/100 sq. cm. (see enclosure 1) as described in reference 3.2. The sample number should be marked near the sample location. Code106.4,B.Turner shall be contacted at 6-2471 if sample number is missing from the area.

2.0 Description

2.1 The floor oil stain shall be decontaminated using the procedures required by this TWD.

3.0 References

3.1 NAVSHIPYDMAREINST 5100.36 – Shipyard Occupational Safety and Health Workplace Manual, Mare Island Naval Shipyard, Occupational Safety, Health, and Environmental Office – Code 106

3.2 Workplan PCB Decontamination for Spill Sites, Mare Island Naval Shipyard, Code 106.4.

3.3 Mare Island Naval Shipyard Environmental Protection Manual of 1 February 1994

4.0 Health & Safety Section / General Notes

4.1 All work performed shall be in strict adherence to the shipyard Occupational Safety and Health (OSH) Manual (reference 3.1) the General Health & Safety Plan, Section 4 of reference 3.2., and the Health and Safety Section of this TWD.

4.2 At least two people shall be present at all times while chemical or physical hazards exist and access is being controlled to the PCB Work Area.

4.3 Personal protective equipment (PPE) shall be as follows:
Saranex coated tyvek coveralls
Viton gloves with latex gloves worn over them
Steel toed boots (if worn without coverings shall be washed with detergent and rinsed).
Nitrile or neoprene foot coverings may be worn over steel toed boots.
Face shield (8" minimum) with vented goggles (while cleaning)

4.4 Workers performing decontamination shall have received the following training as a minimum:
PCB Handling Controls (course YJ-B010)
Hazcomm (course YJ-A552)

4.5 The main hazard at the site is PCBs on the floor. Ventilation is adequate as the building is vacant and is large, and this will provide fresh air.

4.6 Temperatures above 100 degrees are not expected, nor is any hot work authorized, so PCBs will not be airborne.

4.7 Site access shall be controlled using the following areas:
• Hot Zone - The area of the spill site. Personnel entry to the hot zone shall be minimized. The area to be decontaminated is the hot zone plus the buffer zone.
•Buffer Zone - A one (1) foot wide area adjacent to and surrounding the hot zone.
•Warm Zone - An area approximately three (3) feet by six (6) feet near the hot zone established by this TWD. The warm zone shall be used for exiting PPE decontamination procedures. The warm zone shall be established prior to beginning decontamination.
These areas shall be posted to exclude unauthorized personnel and the building shall be locked when not in use.

4.8 An emergency eyewash station with a 15 minute minimum capacity shall be accessible in 10 seconds or less from the work area.

4.9 Phone numbers are as follows:

Hospital:	9-911 or 646-4444	Ambulance:	9-911 or 646-4444
Spill team:	646-0182 or 0183	Fire:	9-911 or 646-3333
Police:	9-911 or 646-2222	Project Mgr.:	646-5945
Emergency:	9-911		

4.10 Contact Code 106.4, B.Turner at 6-2471 immediately after the floor decontamination. Resampling after decontamination is required by Code 106.4.

5.0 Decontamination Procedures

5.1 Support Area (Personal Decontamination)
Personal decontamination is required for PPE and cleaning equipment that comes in contact with PCB contaminated surfaces or PCB contaminated cleaning fluid and materials. Personal decontamination shall be performed in the warm zone, as defined in Section 4.7, and shall be performed in accordance with Section 4.9 of reference 3.2. The floor of the warm zone and routes between the warm zone

and the hot zones shall be covered with plastic drop cloths to avoid spread of contamination.

5.2 HSP Forms

Code 106.4 will provide minimum specific health and safety information in Section 4.0 of each TWD. This information in most cases will be sufficient. Personal preferences regarding PPE and communication methods, and changes at the decontamination site from the time the TWD was written to when the decontamination is accomplished/completed may cause a change to the health and safety information provided. Therefore, the On-Site Health and Safety Coordinator, just prior to and during decontamination, shall review HSP forms 4.6, 4.15 and 4.16 of reference 3.2 and complete forms if: 1) one of the conditions mentioned in the previous sentence exist or 2) the TWD does not cover an item, e.g. communications, on HSP form 4.16. Any down grading of health and safety information (PPE and air monitoring) will only occur upon written approval of Code 106.4. HSP Acceptance Form 4.17 (enclosure 2), must be completed and signed by each person performing decontamination.

5.3 Sampling Evolution (Place an x or number on applicable line)
Initial Sampling ___X___ Resampling _____ (1,2,3,etc.)

5.4 Specific Instructions:
Perform decontamination of floor stain in accordance with the applicable general instructions set forth in reference 3.2, section 2, paragraph 2.5.1, and the specific requirements as follows: Double wash / rinse entire stain on concrete area with industrial strength detergent or non-ionic surfactant solution, following steps in paragraph 2.5.2.1. All waste shall be packaged and handled as PCB contaminated waste. Properly contain, store, label and dispose of contaminated debris, absorbents, rags, and other materials resulting from the decontamination. Latest disposal requirements are in reference 3.3 (Chapter 9, 4.c.(1).

5.5 Other Instructions
Resampling is required (see paragraph 4.10) Code 106.4 shall take a swipe sample of the concrete area..

5.6 The shop performing the decontamination shall sign below to certify that the decontamination conforms to this TWD.

5.6.1 Code 300EC performed decontamination of floor oil stains in building 688 as required.

Code 300EC _____ Date _____

Return completed information package (TWD and HSP forms) for this floor stain to the project engineer, Code 106.4 PCBs, Building 521, second floor.

6.0 Code 106.4 Engineering Review and Approval and Resampling Results Acceptance

6.1 Code 106.4 conduct review and approval of information package. Floor oil stain decontamination conforms with requirements of this TWD.

Code 106.4_____Date_____

6.2 Code 106.4 review and acceptance of resampling results. For results to be satisfactory they must be ≤ 10 µg/100 sq. cm. for wipe samples and < 50 ppm for other samples where no release to the environment has occurred.

Results are: ☐ SAT ☐ UNSAT (remarks required)

Remarks: _____

_____

_____

Code 106.4_____Date_____

7.0 Enclosures

(1) Sample Results
(2) Health And Safety Plan Acceptance Form
(3) Sketch

ANALYTICAL REPORT

Mare Island Naval Shipyard		Date Sampled:	04/17/95
Code 106.14, Stop T-56		Date Received:	04/25/95
Building 1345		Date Extracted:	04/28/95
Vallejo, CA 94592-5100		Date Analyzed:	05/05/95
		Work Order No.:	95-04-517
Attn: Tammi Kratzel		Method:	EPA 8080 (PCBs)
RE: Contract No. N00123-92-D-4011		Page 1 of 6	

All results are reported in µg/sample.

Sample Number: 5978-95 (688/05-F2/misc & oil stain #)

Analyte	Concentration	Reportable Limit
Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	4.09	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

Sample Number: 5979-95 (688/05-F2/misc & oil stain #) [5103-0648]

Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	15.1	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

Enclosure 1

TWD 95-0340

Health And Safety Plan Acceptance Form

INSTRUCTIONS: This form is to be completed by each person prior to beginning work at the PCB work area. Attach the completed forms to the TWD.

TWD No.: 95-0340

PCBCM#: FLOOR STAIN -88

By my signature below, I acknowledge that I have read and understand the contents of the Health & Safety Plan for this project. I agree to perform my work in accordance with the Health and Safety Plan.

Signature

Print Name

Code

Date

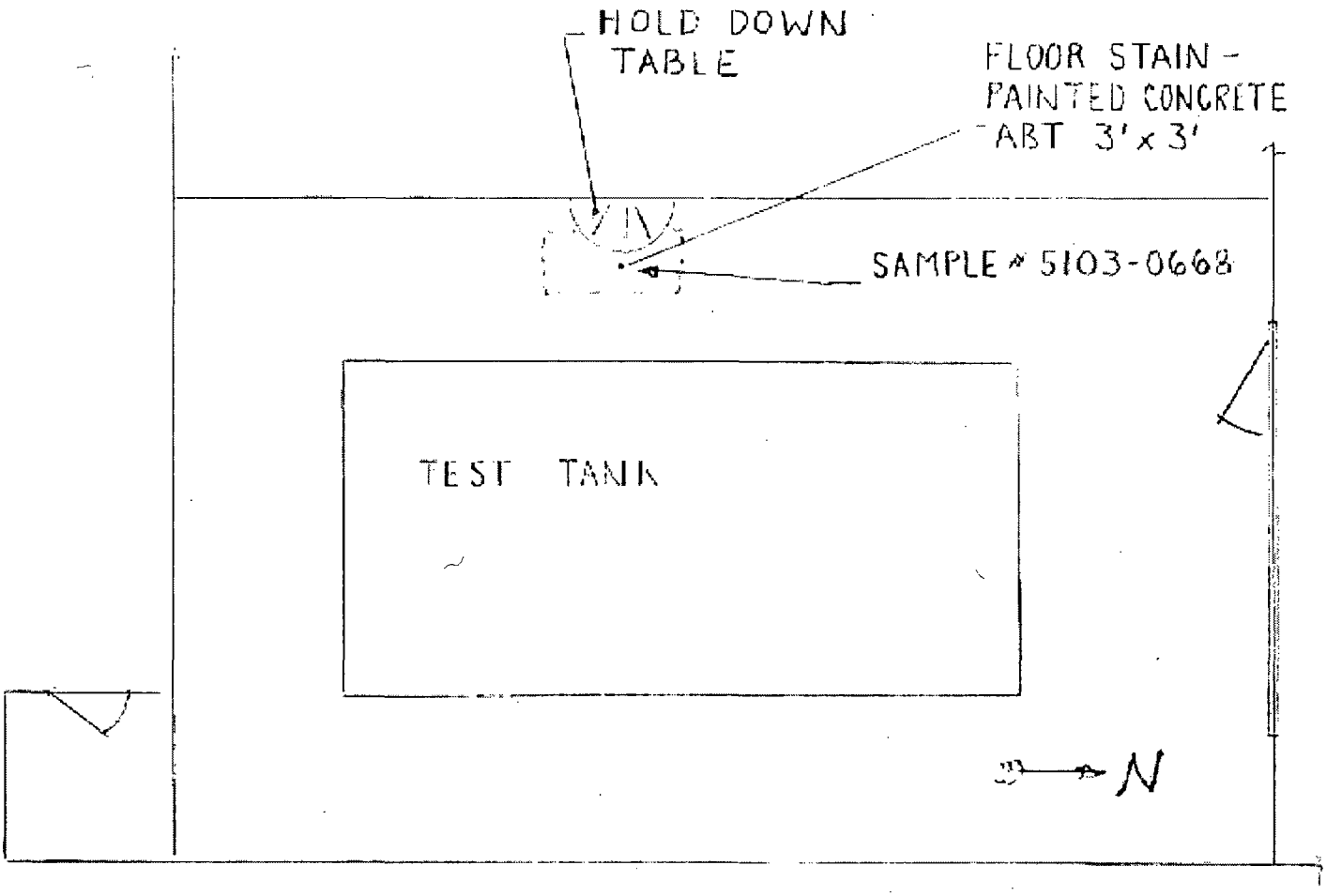
By my signature below, I acknowledge that I have read and understand the contents of the Health & Safety Plan for this project. I agree to perform my work in accordance with the Health and Safety Plan.

Signature

Print Name

Code

Date



PLAN VIEW

BLDG. 688 - SOUTH EAST CORNER OF BUILDING

SKETCH - FLOOR STAIN BLDG. 688

ENCLOSURE 3

TWD 95-0340

UID# 02242

MARE ISLAND NAVAL SHIPYARD
YARD ROUTE SLIP

CODE	STOP	NAME	EXTENSION	DATE
106.4PCB		L. RAMEY	6-7657	

- [X] ACTION
- [ ] AS DISCUSSED
- [ ] COMMENT/CONCUR
- [ ] COORDINATE
- [ ] FILE
- [ ] INFORMATION
- [ ] PREPARE DRAFT
- [ ] PREPARE FOR SIGNATURE
- [ ] REPORT BACK
- [ ] RETENTION
- [ ] RETURN
- [ ]

TO CODE	INITIALED BY	INITIALED DATE
PAINE		
VARNAU	[illegible]	6/15
[illegible]		

SUBJECT: REQUEST FOR TWD ACTION

COMMENTS: (SEE ATTACHED ANALYSIS RECORD)

EQUIPMENT DESCRIPTION:

TWD # 96-340

EQUIPMENT ID NO:

EQUIPMENT LOCATION:

SAMPLE TYPE:

SCHEDULED DISPOSITION:

ANALYTICAL REPORT

Mare Island Naval Shipyard		Date Sampled:	04/17/95
Code 106.14, Stop 1-56		Date Received:	04/25/95
Building 1345		Date Extracted:	04/28/95
Vallejo, CA 94592-5100		Date Analyzed:	06/05/95
		Work Order No.:	95-04-517
Attn: Tamara Kratzer		Method:	EPA 8080 (PCBs)
RE: Contract No. N00123-92-D-4011		Page 1 of 6	

All results are reported in µg/sample.

Sample Number: 5978-95 (688/05-F2/misc & oil stain #)

Analyte	Concentration	Reportable Limit
Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	4.09	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

Sample Number: 5979-95 (688/05-F2/misc & oil stain #) [5103-06685]

Aroclor-1016	ND	0.1
Aroclor-1221	ND	0.1
Aroclor-1232	ND	0.1
Aroclor-1242	ND	0.1
Aroclor-1248	ND	0.1
Aroclor-1254	15.1	0.1
Aroclor-1260	ND	0.1
Aroclor-1262	ND	0.1

CHAIN OF CUSTODY RECORD dtd 04/17/95

95-m-0905 Doc Num 51070435 Page 1 of 2

C&T

ADDRESS BLOCK

From Tammi Kratzel
MINSY Code 106.14 Stop T56 Bldg 1345
Vallejo, CA 94592-5100
Tel (707) 646-0181 Fax (707) 646-0184

To Cal Science Environmental Laboratories, Inc.
11651 Seaboard Circle
Stanton, CA 90680
Tel (714) 895-5494 Fax (714) 894-7501

INSTRUCTION BLOCK

Turnaround Time:

[ ] Same Day [ ] 24 Hrs [ ] 48 Hrs [ ] 5 Days [X] 10 Days [ ] Rush

Written QC Report Required?

[X] Routine QC [ ] RWQCB

PCB SAMPLE DATA BLOCK

C106.14 Sample Number	C106.4 Sample ID	Location/Parcel/Description	Sampling Date	Sampling Time	Oil Grab	Water Grab	Solid/Soil Filter	Type	Num Cont	Cont Size	Analysis Required
5978-95	5103-0667	688/05-F2/misc & oil stain #	04/17/95	8:00	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5979-95	5103-0668	688/05-F2/misc & oil stain #	04/17/95	8:15	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5980-95	5103-0669	688/05-F2/misc & oil stain #	04/17/95	8:30	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5981-95	5103-0670	688/05-F2/misc & oil stain #	04/17/95	8:45	[X]	[ ]	[ ]	[5]	[1]	[40ml]	~~300[illegible]~~
5982-95	5103-0671	688/05-F2/misc & oil stain #	04/17/95	9:00	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5983-95	5103-0672	688/05-F2/misc & oil stain #	04/17/95	9:15	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5984-95	5103-0673	688/05-F2/misc & oil stain #	04/17/95	9:30	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5985-95	5103-0674	688/05-F2/misc & oil stain # RANK	04/17/95	9:45	[ ]	[ ]	[X]	7	[1]	[40ml]	~~300[illegible]~~
5986-95	5103-0676	688/05-F2/misc oil stain #	04/17/95	10:00	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~
5987-95	5103-0677	688/05-F2/misc oil stain #	04/17/95	10:15	[ ]	[ ]	[X]	[2]	[1]	[40ml]	~~300[illegible]~~

Type: [1] swipe mm ext, [2] swipe spill, [3] swipe/devw int, [4] solid spill, [5] oil res mm, [6] water grab, [7] other

CHAIN OF CUSTODY RECORD

		Date	Time
Data Transferred by: (Signature) [signature]		4/12/95	1500
Relinquished by: (Signature) [signature] 4-12-95	Received by: (Signature) [signature]	4/12/95	1600
Relinquished by: (Signature) [signature]	Received by: (Signature) [signature]	4/18/95	930
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received for Laboratory: (Signature)	Date:	Time:

PCB SURVEY AND SAMPLE DATA SHEET (ADDON SHEET)

DESCRIPTION BLOCK

Bldg [illegible] Floor [illegible] Column ____ Map Quad ____

Desc ____ Manuf ____ Model Num ____ Manuf Ser Num ____

Property Number ____ Alias ____ Num Of Samples ____

PCB SAMPLE DATA BLOCK

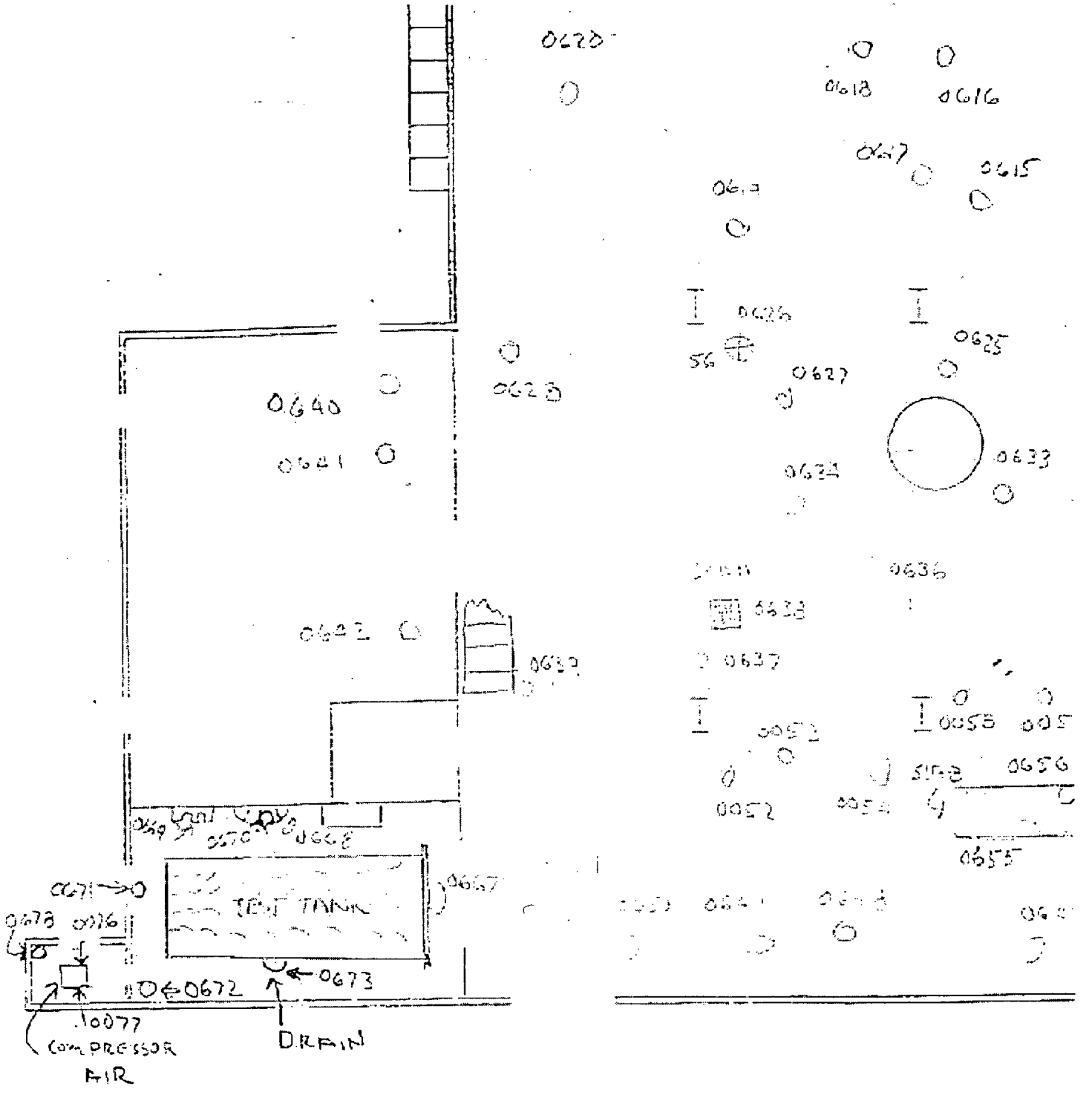
Sample ID	Date	Time	Oil Grab	Water Grab	Solid/Soil Filter	Type	Cont Size	Remarks
5103-0667	[illegible]	[illegible]	[ ]	[ ]	[illegible]	[2]	[illegible]	[illegible]
5103-0668	4-[illegible]	[illegible]	[ ]	[ ]	[illegible]	[2]	[illegible]	[illegible]
5103-0669	[illegible]	[illegible]	[ ]	[ ]	[illegible]	[illegible]	[illegible]	[illegible]
5103-0670	4-[illegible]	[illegible]	[illegible]	[ ]	[ ]	[illegible]	[illegible]	[illegible]
5103-0671	[illegible]	[illegible]	[ ]	[ ]	[ ]	[illegible]	[illegible]	[illegible]
5103-0672	4-[illegible]	[illegible]	[ ]	[ ]	[illegible]	[ ]	[illegible]	[illegible]
5103-0673	[illegible]	[illegible]	[ ]	[ ]	[illegible]	[illegible]	[illegible]	[illegible]
5103-0674	[illegible]	[illegible]	[ ]	[ ]	[illegible]	[illegible]	[illegible]	[illegible]
5103-0675	[illegible]		[ ]	[ ]	[ ]	[ ]	[ ]	[illegible]

Type: [1] swipe mm ext, [2] swipe spill, [3] swipe mesv int, [4] solid spill, [5] oil res mm, [6] water grab, [7] blank

SKETCH BLOCK

Samples were taken, labeled, sealed, recorded, stored and secured from tampering by unauthorized personnel as required by: Section 3 of "Work Plan PCB Survey and Sampling For Mechanical Machinery"; or "Work Plan PCB Survey and Sampling For Possible Spill Sites".

Name [signature]	Badge Num [illegible]	Date [illegible]
Name [signature]	Badge Num 032[illegible]	Date [illegible]
Name [signature]	Badge Num [illegible]	Date [illegible]



FACILITY AND PRODUCTION EQUIPMENT
FIRST FLOOR

5103 SERIES SAMPLE #'S